AMENDMENTS TO THE CLAIMS

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1. - 35. (canceled)

36. (currently amended) A method of identifying a human having an increased risk for developing RF-positive rheumatoid arthritis ~~an autoantibody positive autoimmune disease,~~ comprising detecting the presence of a single nucleotide polymorphism (SNP) at position 101 of SEQ ID NO: 36673 or its complement thereof in said human's nucleic acids, wherein the presence of T at position 101 of SEQ ID NO: 36673 ~~the SNP~~ is indicative of an increased risk for developing said RF-positive rheumatoid arthritis ~~autoantibody positive autoimmune disease~~ in said human.

37-38. (canceled)

39. (currently amended) The method of claim 36 in which SEQ ID NO: 36673 is contained within the genomic sequence of the PTPN22 gene as represented by SEQ ID NO: 1688.

40. (previously presented) The method of claim 36 in which the SNP to be detected is located at position 42798 of SEQ ID NO: 10739.

41. (previously presented) The method of claim 36 in which said human's nucleic acids are extracted from a biological sample therefrom.

42. (previously presented) The method of claim 41 in which said biological sample is blood.

43. (previously presented) The method of claim 36 in which said human's nucleic acids are amplified before the detection is carried out.

44. (previously presented) The method of claim 36 in which detection is carried out by using detection reagents comprising the nucleotide sequences of SEQ ID NO: 49745, SEQ ID NO: 49746, and SEQ ID NO: 49747.

45. (previously presented) The method of claim 36 in which detection is carried out by a process selected from the group consisting of: allele-specific probe hybridization, allele-specific primer extension, allele-specific amplification, sequencing, 5' nuclease digestion, molecular beacon assay, oligonucleotide ligation assay, size analysis, and single-stranded conformation polymorphism.

46. (currently amended) A method of identifying a human having a decreased risk for developing RF-positive rheumatoid arthritis ~~an autoantibody-positive autoimmune disease~~, comprising detecting the presence of a single nucleotide polymorphism (SNP) at position 101 of SEQ ID NO: 36673 or its complement thereof in said human's nucleic acids, wherein the presence of C at position 101 of SEQ ID NO: 36673 is indicative of a decreased risk for said RF-positive rheumatoid arthritis ~~autoantibody-positive autoimmune disease~~ in said human.

47-48. (canceled)

49. (currently amended) The method of claim 46 in which SEQ ID NO: 36673 is contained within the genomic sequence of the PTPN22 gene as represented by SEQ ID NO: 10739.

50. (previously presented) The method of claim 46 in which the SNP to be detected is located at position 42798 of SEQ ID NO: 10739.

51. (previously presented) The method of claim 46 in which said human's nucleic acids are extracted from a biological sample therefrom.

52. (previously presented) The method of claim 51 in which said biological sample is blood.

53. (previously presented) The method of claim 46 in which said human's nucleic acids are amplified before the detection is carried out.

54. (previously presented) The method of claim 46 in which detection is carried out by using detection reagents comprising the nucleotide sequences of SEQ ID NO: 49745, SEQ ID NO: 49746, and SEQ ID NO: 49747.

55. (previously presented) The method of claim 46 in which detection is carried out by a process selected from the group consisting of: allele-specific probe hybridization, allele-specific primer extension, allele-specific amplification, sequencing, 5' nuclease digestion, molecular beacon assay, oligonucleotide ligation assay, size analysis, and single-stranded conformation polymorphism.

56. (currently amended) A method of determining a human's risk for developing RF-positive rheumatoid arthritis ~~an autoantibody positive autoimmune disease~~, comprising detecting a single nucleotide polymorphism (SNP) at position 101 of SEQ ID NO: 36673 or its complement thereof in said human's nucleic acids, wherein the presence of T at position 101 of SEQ ID NO: 36673 is indicative of an increased risk for said RF-positive rheumatoid arthritis ~~autoantibody-positive autoimmune disease~~ in said human, or, the presence of C at position 101 of SEQ ID NO: 36673 is indicative of a decreased risk for developing said RF-positive rheumatoid arthritis ~~autoantibody-positive autoimmune disease~~ in said human.

57-58. (canceled)

59. (currently amended) The method of claim 56 in which SEQ ID NO: 36673 is contained within the genomic sequence of the PTPN22 gene as represented by SEQ ID NO: 10739.

60. (previously presented) The method of claim 56 in which the SNP to be detected is located at position 42798 of SEQ ID NO: 10739.

61. (previously presented) The method of claim 56 in which said human's nucleic acids are extracted from a biological sample therefrom.

62. (previously presented) The method of claim 61 in which said biological sample is blood.

63. (previously presented) The method of claim 56 in which said human's nucleic acids are amplified before the detection is carried out.

64. (previously presented) The method of claim 56 in which detection is carried out by using detection reagents comprising the nucleotide sequences of SEQ ID NO: 49745, SEQ ID NO: 49746, and SEQ ID NO: 49747.

65. (previously presented) The method of claim 56 in which detection is carried out by a process selected from the group consisting of: allele-specific probe hybridization, allele-specific primer extension, allele-specific amplification, sequencing, 5' nuclease digestion, molecular beacon assay, oligonucleotide ligation assay, size analysis, and single-stranded conformation polymorphism.